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### **Western Ohio Cropland Values and Cash Rents 2010-11**

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**Abstract:** Ohio cropland values and cash rental rates are projected to increase in 2011. According to the Western Ohio Cropland Values and Cash Rents Survey bare cropland values are expected to increase from 3.1% to 7.4% in 2011 depending on the region and land class. Cash rents are expected to increase from 7.19% to 10.11 % depending on the region and land class.

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Ohio cropland varies significantly in its production capabilities and cropland values and cash rents vary across the state. Generally speaking, western Ohio cropland values and cash rents differ substantially from eastern Ohio cropland values and cash rents. This is due to a number of factors including land productivity, potential crop return, variability of crop return, field size, field shape, drainage, population, ease of access, market access, local market price, and competition for rented cropland in a region.

This factsheet is a summary of data collected for western Ohio cropland values and cash rents.

Ohio cropland values and cash rental rates are projected to increase in 2011. According to the Western Ohio Cropland Values and Cash Rents Survey bare cropland values are expected to increase from 3.1% to 7.4% in 2011 depending on the region and land class. Cash rents are expected to increase from 7.19% to 10.11 % depending on the region and land class.

The “Western Ohio Cropland Values and Cash Rents” survey was conducted by drawing on the expertise of professionals that are knowledgeable about Ohio’s cropland markets. Surveyed groups include farm managers, rural appraisers, agricultural lenders, OSU Extension educators, farmers, landowners, and Farm Service Agency personnel.

One hundred and thirty surveys were completed, analyzed and summarized. Respondents were asked to give responses based on 3 classes of land in their area; “top” land, “average” land and “poor” land. The preliminary survey results are summarized below for Western Ohio and regional summaries are summarized for northwest Ohio (NW Results) and southwest Ohio (SW Results).

Tables show the average (Avg) (simple average) of each measure, standard deviation (Std) of the data for that measure (measure of variability), and Range (average minus and plus one standard deviation. These latter two numbers reported indicate a range within which about two-thirds of the responses in the data for that measure will fall.

## **Western Ohio Results**

Survey results from western Ohio are summarized in Table 1.

### **Top Cropland**

Survey results indicate that “top” performing cropland in western Ohio averages 193.8 bushels of corn per acre. Results also show that average value of “top” cropland in 2010 was \$5,966 per acre. According to this survey “top” cropland in western Ohio is expected to be valued at \$6,280 in 2011. This is a projected increase of 5.3%.

“Top” cropland in western Ohio rented for an average of \$193 per acre in 2010 according to survey results. “Top” cropland is expected to rent for \$211 in 2011. This equates to a cash rent of \$1.09 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 3.4% of land value in 2011.

### **Average Cropland**

Survey results for “average” producing cropland show an average yield to be 159.6 bushels of corn per acre. Results show that the value of “average” cropland in western Ohio was \$4,830 per

acre in 2010. According to survey data this “average” producing cropland is expected to be valued at \$5,086 per acre in 2011. This is a projected increase of 5.3%.

“Average” cropland rented for an average of \$151 per acre in 2010 according to survey results. “Average” cropland is expected to rent for \$163 per acre in 2011. This equates to a cash rent of \$1.02 per bushel of corn produced. Rents in the “average” cropland category are expected to equal 3.2% of land value in 2011.

### **Poor Cropland**

The survey summary shows the average yield for “poor” performing cropland equals 128.4 bushels of corn per acre. Results also show that the average value of “poor” cropland was \$3,743 per acre in 2010. According to survey data this “poor” producing cropland is expected to be valued at \$3,966 in 2011. This is an increase of 6.0%.

“Poor” cropland rented for an average of \$116 per acre in 2010 according to survey results. Cash Rent for “Poor” cropland is expected to average \$126 per acre in 2011. This equates to a cash rent of \$0.98 per bushel of corn produced in 2011. Rents in the “poor” cropland category are expected to equal 3.2% of land value in 2011.

## **Northwest Ohio Results**

Survey results from northwest Ohio are summarized in Table 2.

### **Top Cropland**

Survey results indicate that “top” performing cropland in northwest Ohio averages 190.3 bushels of corn per acre or 58.8 bushels of soybeans per acre. Results also show that the average value of “top” cropland was \$5,641 per acre in 2010. According to this survey “top” producing cropland in northwest Ohio is expected to be valued at \$6,031 in 2011. This is a projected increase of 6.9%.

“Top” cropland in northwest Ohio rented for an average of \$178 per acre in 2010 and is expected to rent for \$196 in 2011 according to survey results, which equals \$1.03 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 3.2% of land value.

### **Average Cropland**

Yields for “average” producing cropland average 157.5 bushels of corn per acre or 46.3 bushels of soybeans per acre. Results show that the value of “average” cropland in northwest Ohio was \$4,585 per acre in 2010. According to survey data this “average” producing cropland is expected to be valued at \$4,926 per acre in 2011. This is a projected increase of 7.4%.

“Average” cropland rented for an average of \$139 per acre in 2010 according to survey results and is expected to rent for \$149 in 2011 which equals \$0.95 per bushel of corn produced. Rents in the “average” cropland category are expected to equal 3.0 % of land value in 2011.

### **Poor Cropland**

The survey summary shows the average yield for “poor” performing cropland in northwestern Ohio equals 126.4 bushels of corn per acre or 35.6 bushels of soybeans per acre. Results also show that the average value of “poor” cropland was \$3,534 per acre in 2010 and is expected to average \$3,772 per acre in 2011. This is a projected increase of 6.7%.

“Poor” cropland rented for an average of \$104 per acre in 2010 and is expected to average \$112 per acre in 2011 according to survey results which equals \$0.89 per bushel of corn produced. Rents in the “poor” cropland category are expected to equal 3.0% of land value in 2011.

The northwest region for the purposes of this survey includes: Williams, Fulton, Lucas, Ottawa, Defiance, Henry, Wood, Sandusky, Paulding, Putnam, Hancock, Seneca, Van Wert, Allen, Hardin, Wyandot, Crawford, Marion and Morrow Counties.

### **Southwest Ohio Results**

Survey results from southwest Ohio are summarized in Table 3.

#### **Top Cropland**

Survey results indicate that “top” performing cropland in southwest Ohio averages 197.9 bushels of corn per acre or 61.7 bushels of soybeans per acre. Results also show that average value of “top” cropland was \$6,330 per acre in 2010. According to this survey “top” producing cropland in southwest Ohio is expected to be valued at \$6,560 per acre in 2011. This is a projected increase of 3.6%.

“Top” cropland in southwest Ohio rented for an average of \$209 per acre in 2010 and is expected to rent for \$227 per acre in 2011 according to survey results which equals \$1.15 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 3.5% of land value in 2011.

#### **Average Cropland**

Yields for “average” cropland equal 162.0 bushels of corn per acre. Results show that the value of “average” cropland in southwest Ohio was \$5,111 per acre in 2010. According to survey data this “average” producing cropland is expected to be valued at \$5,270 per acre in 2011. This is a projected increase of 3.1%.

“Average” cropland rented for an average of \$165 per acre in 2010 and is expected to rent for \$180 per acre in 2011 according to survey results which equals \$1.11 per bushel of corn produced. Rents in the “average” cropland category are expected to equal 3.4% of land value in 2011.

#### **Poor Cropland**

The survey summary shows the average yield for “poor” cropland in southwestern Ohio equals 130.9 bushels of corn per acre. Results also show that the average value of “poor” cropland was \$3,988 per acre in 2010. According to survey data this “poor” producing cropland is expected to be valued at \$4,194 per acre in 2011. This is an increase of 5.2%.

“Poor” cropland rented for an average of \$129 per acre in 2010 and is expected to average \$142 per acre in 2011 according to survey results which equals \$1.09 per bushel of corn produced. Rents in the “poor” cropland category are expected to equal 3.4% of land value in 2011.

The southwest region for the purposes of this survey includes: Mercer, Auglaize, Shelby, Logan, Union, Delaware, Darke, Miami, Champaign, Clark, Madison, Franklin, Preble, Montgomery, Greene, Butler, Warren, Hamilton, Clermont, Clinton, Fayette and Pickaway Counties.

### **Additional Survey Results**

Survey respondents were asked to give their best estimates for long term land value and cash rent change as well as projections for mortgage and operating loan interest rates for 2011.

The average estimate of cropland value change in the next 5 years is an increase of 7%. There was a large range in responses from survey participants for cropland value change in 5 years. Responses ranged from an increase of 25% to a decrease of 50%.

The average estimate of cash rent change in the next 5 years is an increase of 7.87%. There was a large range in responses from survey participants for cash rent change in 5 years. Responses ranged from an increase of 25% to a decrease of 50%.

The summary of these responses is presented in Tables 1 through 3 and includes: Value of Cropland in Transition 2010 and 2011 (areas where much of the land is moving into residential, commercial & industrial uses), Expected Percent Change in the Value of Cropland in the Next 5 Years, Expected Percent Change in the Cash Rental Rates in the Next 5 Years, Expected Average Interest Rate for Mortgage Loans for 2011, Expected Average Operating Loan Rate for 2011, Pasture Cash Rent per Acre and the Value of Pasture Land. Tables 1 through 3 below show the results of the survey for these measures for western Ohio and 2 sub-regions (northwest and southwest) of Ohio.

### **Summary**

This study will add to existing research on Ohio farmland values and cash rents that can assist producers and landowners with purchase and rental decisions. Existing research includes:

Ohio Cropland Values and Cash Rents 2009-10 at:

<http://aede.osu.edu/resources/docs/pdf/D2R0YYDP-94GQ-4JKS-VOS4DHRFYGJXGKQC.pdf>

Ohio Cropland Values and Cash Rents 2008-09 at:

<http://ohioline.osu.edu/ae-fact/pdf/cropland0809.pdf>

Ohio Cropland Values and Cash Rents 2007-08 at:

[http://ohioline.osu.edu/ae-fact/pdf/Cropland\\_Values\\_Rents\\_07\\_08.pdf](http://ohioline.osu.edu/ae-fact/pdf/Cropland_Values_Rents_07_08.pdf)

Ohio Cropland Values and Cash Rents 2006-07 at:

<http://ohioline.osu.edu/ae-fact/pdf/cropland.pdf>

Ohio Cropland Values and Cash Rents 2005-06 at:

<http://aede.osu.edu/resources/docs/pdf/D8QOMB09-77MY-IDPZ-DST14X1DMQ007PS6.pdf>

Ohio Farm Real Estate Markets (2003) at:

<http://aede.osu.edu/resources/docs/pdf/C2V16S20-H8CG-UEFY-JGL2H3JPU7Y1PO5J.pdf>

Also, check with your local OSU Extension Office for local land value/rental survey summaries. For additional information on farmland lease issues see the Department of Agricultural, Environmental and Development Economics (AEDE) Farm Management webpage at: <http://aede.osu.edu/Programs/FarmManagement/MgtPublications.htm>

<b>Table 1: Ohio Cropland Values and Cash Rents</b>						
<b>Western Ohio Results</b>						
				Avg	Std	Range*
Top	Avg Corn Yield			193.8	16.3	177.5 210.1
	Avg Soybean Yield			60.1	5.8	54.3 66.0
	Market Value per Acre	2010		\$5,966	\$1,203	\$4,763 \$7,169
		2011		\$6,280	\$1,131	\$5,149 \$7,411
	Rent per Acre	2010		\$193	\$35	\$158 \$228
		2011		\$211	\$40	\$171 \$250
Average	Avg Corn Yield			159.6	13.3	146.3 172.9
	Avg Soybean Yield			48.3	5.4	42.9 53.7
	Market Value per Acre	2010		\$4,830	\$908	\$3,922 \$5,738
		2011		\$5,086	\$890	\$4,196 \$5,976
	Rent per Acre	2010		\$151	\$26	\$126 \$177
		2011		\$163	\$31	\$133 \$194
Poor	Avg Corn Yield			128.4	15.4	113.1 143.8
	Avg Soybean Yield			37.4	5.7	31.7 43.1
	Market Value per Acre	2010		\$3,743	\$765	\$2,977 \$4,508
		2011		\$3,966	\$812	\$3,154 \$4,778
	Rent per Acre	2010		\$116	\$25	\$91 \$141
		2011		\$126	\$27	\$99 \$153
Cropland in Transition		2010		\$9,036	\$7,201	\$1,835 \$16,236
		2011		\$9,382	\$7,321	\$2,061 \$16,703
Cropland Value % Change in 5 Yrs.				7.00%	15.17%	-8.17% 22.17%
Cash Rental % Change in 5 Yrs.				7.87%	13.93%	-6.06% 21.79%
Mortgage Interest				6.02%	0.73%	5.29% 6.75%
Operating Loan Rate				4.81%	0.81%	4.00% 5.62%
Pasture Land - Cash Rent per Acre				\$56	\$28	\$27 \$84
Pasture Land - Value per Acre				\$2,820	\$946	\$1,874 \$3,766
* Range is Average minus and plus one standard deviation (Std).						

<b>Table 2: Ohio Cropland Values and Cash Rents</b>							
<b>Northwest Ohio Results</b>							
				Avg	Std	Range*	
Top	Avg Corn Yield			190.3	14.7	175.6	205.0
	Avg Soybean Yield			58.8	5.7	53.1	64.6
	Market Value per Acre	2010		\$5,641	\$889	\$4,753	\$6,530
		2011		\$6,031	\$810	\$5,221	\$6,841
	Rent per Acre	2010		\$178	\$28	\$151	\$206
		2011		\$196	\$37	\$160	\$233
Average	Avg Corn Yield			157.5	10.2	147.3	167.8
	Avg Soybean Yield			46.3	4.8	41.5	51.2
	Market Value per Acre	2010		\$4,585	\$721	\$3,864	\$5,306
		2011		\$4,926	\$724	\$4,202	\$5,649
	Rent per Acre	2010		\$139	\$17	\$122	\$157
		2011		\$149	\$26	\$124	\$175
Poor	Avg Corn Yield			126.4	12.4	114.0	138.8
	Avg Soybean Yield			35.6	5.1	30.5	40.7
	Market Value per Acre	2010		\$3,534	\$580	\$2,954	\$4,114
		2011		\$3,772	\$585	\$3,188	\$4,357
	Rent per Acre	2010		\$104	\$16	\$88	\$120
		2011		\$112	\$22	\$90	\$135
Cropland in Transition		2010		\$7,250	\$2,429	\$4,821	\$9,679
		2011		\$7,906	\$3,348	\$4,558	\$11,255
Cropland Value % Change in 5 Yrs.				9.81%	10.64%	-0.83%	20.45%
Cash Rental % Change in 5 Yrs.				10.89%	10.33%	0.56%	21.22%
Mortgage Interest				6.19%	0.53%	5.65%	6.72%
Operating Loan Rate				4.67%	0.57%	4.10%	5.24%
Pasture Land - Cash Rent per Acre				\$67	\$29	\$38	\$97
Pasture Land - Value per Acre				\$2,922	\$620	\$2,302	\$3,542
* Range is Average minus and plus one standard deviation (Std).							

Table 3: Ohio Cropland Values and Cash Rents							
Southwest Ohio Results							
				Avg	Std	Range*	
Top	Avg Corn Yield			197.9	17.2	180.7	215.2
	Avg Soybean Yield			61.7	5.6	56.0	67.3
	Market Value per Acre	2010		\$6,330	\$1,401	\$4,929	\$7,731
		2011		\$6,560	\$1,363	\$5,196	\$7,923
	Rent per Acre	2010		\$209	\$36	\$173	\$244
		2011		\$227	\$38	\$189	\$264
Average	Avg Corn Yield			162.0	15.9	146.1	177.9
	Avg Soybean Yield			50.8	5.1	45.7	55.9
	Market Value per Acre	2010		\$5,111	\$1,021	\$4,090	\$6,133
		2011		\$5,270	\$1,027	\$4,242	\$6,297
	Rent per Acre	2010		\$165	\$28	\$137	\$193
		2011		\$180	\$28	\$152	\$207
Poor	Avg Corn Yield			130.9	18.1	112.7	149.0
	Avg Soybean Yield			39.6	5.7	33.9	45.4
	Market Value per Acre	2010		\$3,988	\$884	\$3,104	\$4,871
		2011		\$4,194	\$976	\$3,218	\$5,170
	Rent per Acre	2010		\$129	\$27	\$101	\$156
		2011		\$142	\$24	\$119	\$166
Cropland in Transition		2010		\$11,417	\$10,412	\$1,005	\$21,828
		2011		\$11,350	\$10,435	\$915	\$21,785
Cropland Value % Change in 5 Yrs.				4.26%	18.29%	-14.03%	22.55%
Cash Rental % Change in 5 Yrs.				4.51%	16.57%	-12.05%	21.08%
Mortgage Interest				5.79%	0.90%	4.90%	6.69%
Operating Loan Rate				5.01%	1.03%	3.98%	6.04%
Pasture Land - Cash Rent per Acre				\$46	\$24	\$22	\$70
Pasture Land - Value per Acre				\$2,739	\$1,152	\$1,586	\$3,891
* Range is Average minus and plus one standard deviation (Std).							

**Table 4. Average estimated Ohio land value per acre (tillable, bare land), per bu. corn and soybean yields, by geographical area and land class  
Ohio Cropland Values and Cash Rents Survey 2010-11.**

Area	Land Class	Corn bu/A	Soy bu/A	Land Value		
				Dollars Per Acre		
				2010	2011*	% Change
				\$/A	\$/A	10 to 11
Northwest	Top	190.3	58.8	\$5,641	\$6,031	6.9%
	Average	157.5	46.3	\$4,585	\$4,926	7.4%
	Poor	126.4	35.6	\$3,534	\$3,772	6.7%
Southwest	Top	197.9	61.7	\$6,330	\$6,560	3.6%
	Average	162.0	50.8	\$5,111	\$5,270	3.1%
	Poor	130.9	39.6	\$3,988	\$4,194	5.2%
Western	Top	193.8	60.1	\$5,966	\$6,280	5.3%
	Average	159.6	48.3	\$4,830	\$5,086	5.3%
	Poor	128.4	37.4	\$3,743	\$3,966	6.0%

\* Projected Land Value

**Table 5. Average estimated Ohio cash rent per acre (tillable, bare land), per bushel corn and soybean yields, by geographical area and land class**  
Ohio Cropland Values and Cash Rents Survey 2009-10.

Area	Land Class	Corn bu/A	Soy bu/A	Rent Per Acre			Rent per Bushel Corn	Rent per Bushel Corn	Rent as % of Land Value	Rent as % of Land Value
				2010 \$/A	2011* \$/A	% Change 10 to '11	2010 \$/Bu	2011* \$/Bu	2010 %	2011* %
Northwest	Top	190.3	58.8	\$178	\$196	10.11%	\$0.94	\$1.03	3.2%	3.2%
	Average	157.5	46.3	\$139	\$149	7.19%	\$0.88	\$0.95	3.0%	3.0%
	Poor	126.4	35.6	\$104	\$112	7.69%	\$0.82	\$0.89	2.9%	3.0%
Southwest	Top	197.9	61.7	\$209	\$227	8.61%	\$1.06	\$1.15	3.3%	3.5%
	Average	162.0	50.8	\$165	\$180	9.09%	\$1.02	\$1.11	3.2%	3.4%
	Poor	130.9	39.6	\$129	\$142	10.08%	\$0.99	\$1.09	3.2%	3.4%
Western	Top	193.8	60.1	\$193	\$211	9.33%	\$1.00	\$1.09	3.2%	3.4%
	Average	159.6	48.3	\$151	\$163	7.95%	\$0.95	\$1.02	3.1%	3.2%
	Poor	128.4	37.4	\$116	\$126	8.62%	\$0.90	\$0.98	3.1%	3.2%

\* Projected Rental Rate